

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* FRANK VENEGAS, JR.

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Appeal No. 2007-1219  
Application No. 10/798,635  
Technology Center 3600

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Decided: September 27, 2007

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Before WILLIAM F. PATE, III, JENNIFER D. BAHR and ANTON W.  
FETTING, *Administrative Patent Judges*.

PATE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 1-4. Claims 7 and 9 have been canceled and claims 5, 6, and 8 have been withdrawn from consideration. These are all the claims in the application.

We have jurisdiction under 35 U.S.C. §§ 134 and 6.

The claimed invention is directed to an energy absorbing barrier system for absorbing the force of an explosive blast. The system is comprised of vertical and horizontal metal pipes and an energy absorbing spanning material spanning the opening formed by the pipes.

Claim 1, as it appears appended to the brief, has not been entered. Claim 1, as finally rejected, reads as follows:

1. An energy-absorbing barrier system, comprising:
  - a plurality of spaced-apart vertical metal pipes, each buried below a ground surface, leaving a portion exposed above ground;
  - two or more spaced-apart horizontal metal pipes interconnected to the vertical metal pipes creating at least one infill area;
  - a material spanning the infill area which is operative to absorb at least a portion of the impact of an explosive blast;
  - a material spanning the infill area fastened to the horizontal or vertical pipes with mounts that break away upon a predetermined force; and
  - a material spanning the infill area is tethered to one or more of the horizontal or vertical pipes to keep the material from uncontrolled travel upon impact.

The evidence of record relied upon by the Examiner as evidence of anticipation and obviousness is:

Norton	US 4,787,603	Nov. 29, 1988
Venegas, Jr.	US 2003/0178614 A1	Sep. 25, 2003

Claims 1-3 stand rejected under 35 U.S.C. § 102 as anticipated by Norton.

Claim 4 stands rejected under 35 U.S.C. § 103 as unpatentable over Norton in view of Venegas.

## ISSUES

The issues for consideration on appeal are whether Appellant has established that the Examiner erred in rejecting claims 1-3 on the ground of lack of novelty and claim 4 on the ground of obviousness.

## FINDINGS OF FACT

Norton discloses a moveable farm enclosure comprised of several fence units that can be dragged through a pasture by a farm tractor. Each of the fence sections or wall units includes a frame member with a pair of vertical elements and at least one horizontal element (col. 1, ll. 44-52). Each of the wall units may include a barrier element comprised of steel mesh or “chicken” wire. The barrier may include wind proofing (col. 2, ll. 4-7). The barrier elements may be attached to the frame member by spot welding or by means of metal wire (col. 2, ll. 9-10). The vertical metal pipes of the frame member are installed in concrete base units cast in a convenient shape (col. 2, ll. 60-64). Preferably, the base units are smooth or rounded so they may slide over the ground with minimum resistance (col. 2, ll. 67-69). The frame members are installed in the base unit by the agency of inserts 60, 70, 80 which are cast in the base units and receive the tubular vertical frame members (col.6, ll. 41-col. 7, ll. 12).

Venegas has been cited by the Examiner as showing plastic as a coating over pipes and spanning material that comprise hand rails, guard rails, or fence sections.

## PRINCIPLES OF LAW

The prior art may anticipate a claimed invention, and thereby render it non-novel, either expressly or inherently. *In re Cruciferous Sprout Litig.*, 301 F.3d1343, 1349, 64 USPQ2d 1202, 1206 (Fed. Cir. 2002), *cert. denied*, 538 U.S. 907 (2003). Express anticipation occurs when the prior art expressly discloses each

limitation (i.e., each element) of a claim. *Id.* In addition, “[i]t is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it.” *Id.*

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR*, 127 S.Ct. at 1734, 82 USPQ2d at 1391 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S.Ct. at 1739, 82 USPQ2d at 1395 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

*Id.* at 1740, 82 USPQ2d at 1396. The operative question in this “functional approach” is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

### ANALYSIS

We will not sustain the rejections on appeal. As an initial matter, we do not find that Norton discloses vertical metal pipes each buried below a ground surface leaving a portion exposed above ground. As noted above, Norton’s vertical pipes are telescoped into tubular receiving elements placed in concrete base units. The base units are not installed in the ground either. In fact, they are mobile in the sense that they are towed from place to place by a tractor.

Secondly, we do not find, that the panel unit, i.e., the materials spanning the infill area is attached to one or more horizontal or vertical pipes by a tether as recited in the last limitation of claim 1. We acknowledge the Examiner’s argument that Norton uses wires to attach the material spanning the infill area to the metal pipes. However, the expression “tethered” denotes to us that the material spanning the infill area remains attached to the metal pipes after the mounts attaching the panel to the pipes is broken away by a predetermined force.

There is no disclosure in Norton that the metal wires holding the panels in place would continue to attach the panels to the framework once the breakaway

mounting is destroyed. If the Examiner is relying on the metal wires to read on the structure of the mounts that break away upon a predetermined force, it is not seen how these wires can also be used to satisfy the limitation of tethers. There is no disclosure in Norton to support a reading that both welds and wires are used to install the mesh or chicken wire in the same installation. The expression “tethered” denotes a flexible member of relatively elongated length. It is only speculation on the part of the Examiner that the metal wires utilized by Norton have the function of a tether in the sense that the spanning material is broken away from the horizontal and vertical pipes yet is still attached thereto by the tethers.

With respect to claim 2 we note that Norton does not fill the vertical pipes with cement or concrete contrary to the Examiner’s argument. In Norton the pipes are slipped into embedded inserts or sleeves 60, 70 or 80. Inserts 60, 70 or 80 do not read on the claimed vertical pipes as they are not exposed above the ground surface. Also, they are not filled with cement, inasmuch as they function as hollow sleeves for reception of the vertical pipes.

We also do not affirm the obviousness rejection of claim 4 based as it is on the disclosure of Norton as the primary reference. Nothing in Venegas can ameliorate the difficulties we have found in Norton.

#### CONCLUSION AND ORDER

The rejection of claims 1-3 as lacking novelty over Norton is reversed.

The rejection of claim 4 as obvious over Norton in view of Venegas is reversed.

REVERSED

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